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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,995	04/13/2004	James R. Lattner	2001B127B/2	4672

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EXAMINER	
JOHNSON, EDWARD M	
ART UNIT	**PAPER NUMBER**
1754	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/822,995	LATTNER ET AL.	
	Examiner	Art Unit	
	Edward M. Johnson	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lattner '005 in view of Harandi '314.

Regarding claims 30 and 33, Lattner et al. discloses a process for converting oxygenates to olefins having a reaction zone and a catalyst regeneration zone, wherein the catalyst is cycled from the reaction zone to the regeneration zone to the reaction zone (see abstract and col. 5, lines 18-25). Lattner et al. discloses a regeneration medium comprised of oxygen (col. 5, lines 26-32). The catalyst is a molecular sieve catalyst.

Lattner fails to disclose disclose adding a heating fuel into the regeneration zone.

Harandi et al. discloses a process for oligomerization of olefins to higher hydrocarbons, wherein the catalyst is oxidatively regenerated at a temperature in the range of 371-510

C (col. 7, line 65 - col. 8, line 5). Harandi et al. continues to teach wherein the regenerator is operated continuously and in order to keep the regenerator hot during this period, fuel may be added to the regenerator as a source of heat (col. 21, lines 38-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to continuously introduce heating fuel having 500 wppm or less of sulfur, 200 wppm or less nitrogen, and an autoignition temperature greater than the first temperature but no greater than about 482 C (900 F) to provide a heated catalyst, in the oxygenate conversion process of Lattner because Harandi discloses the continuous operation to keep the regenerator hot during this period, and the fuel addition to the regenerator as a source of heat, which would motivate the ordinary artisan to incorporate those features into the Lattner teachings to achieve the disclosed favorable results.

It also would have been obvious and within the purview of an ordinary artisan to heat the first regeneration zone to at least as high as the autoignition temperature so as to reduce the amount of heat later needed.

Regarding claims 31 and 35, about 500 wppm or less of sulfur and has about 200 wppm or less nitrogen in the heating fuel can read on 0, making the claimed percentage of sulfur and

nitrogen in the fuel obvious to one of ordinary skill in the art over the cited prior art, which does not require the presence of either.

Regarding claim 32, vanadium is not required in the cited prior art. And, in any case, it would have been obvious to one of ordinary skill to achieve a desired percentage of nickel and vanadium, based on the teachings of Harandi et al., which teaches having nickel (col. 17, lines 26-30).

Regarding claim 34, Lattner et al. discloses a process for converting oxygenates to olefins with molecular sieve catalyst (title).

Response to Arguments

3. Applicant's arguments filed 3/29/06 have been fully considered but they are not persuasive.

It is argued that the Examiner urges that since both... these two references. This is not persuasive because both references address the problem of eliminating coke by regeneration and also because Applicant appears to merely assert that the Harandi reference adds the fuel to solve a different problem than the instant Application. However, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be

obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is argued that further, there is simply no indication or suggestion in Harandi… oligomerization reactor. This is not persuasive because the catalyst is recycled after being heated in the presence of combusted fuel gas before being sent back to the reactor. Therefore, even if the catalyst is heated to provide coke, rather than heat, into the reactor, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is argued that secondly, catalyst from the regenerator in Harandi… reactor feed. This is not persuasive because Harandi does not disclose a "cooling" step between the regeneration and reaction steps, as Applicant appears to suggest and also because Applicant does not claim a specific amount or "significant" heat above what would be transferred by the "relatively small amounts" of heated, recycled catalyst in Harandi. It is noted that the features upon which applicant relies (i.e., an amount of heat greater than that provided by a "relatively small amount" of catalyst) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It is argued that finally, it is submitted that combining... compounds as contaminants. This is not persuasive because the claimed ranges include zero and it would be obvious to an ordinary artisan to avoid ingredients that are not disclosed or required by the cited prior art.

It is argued that in response, Applicants would note... concentration limits on. This is not persuasive for the reasons above.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edward M. Johnson
Primary Examiner
Art Unit 1754

EMJ